INDEX OF SURGICAL PROGRESS.

NERVOUS AND VASCULAR SYSTEMS.

I. On the Operative Treatment of Loss of Substance in Peripheral Nerves. By Dr. H. TILLMANNS (Leipzig) Of course the various methods of overcoming such a loss in continuity are first examined (vide ANNALS I, p. 132, II p. 181). Operative treatment of these nerve defects has been proposed in no less than six ways: 1. Transplantation into the defect of a bit of nerve from the same or some other animal species. 2. Union of the peripheral stump with some neighboring uninjured nerve (greffe nerveuse). 3. Crossed splicing, when there are defects in two neighboring nerves, but not at the same level, even union of the shorter to the longer central stump may be made. 4. Formation of pediculated nerve-flaps, either a single central flap or one from both stumps. 5. Interposition of a decalcinated bone tube. (Under the same head falls the proposition to unite the ends by strands of catgut, hoping thus to direct regeneration). 6. Subperiosteal exsection of a piece from the bony continuity of the corresponding extremity, with subsequent suture of the nerve stumps. A matter of great importance in all these methods is their preventing the interpolation of connective tissue between the nerve stumps.

T.'s case was that of a woman æt. 23. Scythe cut of volar side of fore-arm about three finger breadths above the fold of the wrist. It healed—no medical care—under suppuration, a paralysis of the hand remaining. This affected the ulnar and median nerves. Atrophy with claw-hand developed. Electrical examination confirmed the extent of paralysis.

Operation four months after injury. It was found impossible to make the nerve stumps meet. A flap was made from each stump of both nerves and connection thus effected. Sutures also of the severed

overlying tendons. Sensation began to return in four weeks. Slight active motility discovered nine weeks after the operation. At the end of a year she wrote with the hand and had nearly perfect use of it; numbness only at the tips of the middle and ring fingers. Of course electricity and massage formed the early part of the after-treatment.—*Arch. f. klin. Chirg.* 1885. Bd. 32. Hft. IV.

W. BROWNING (Brooklyn).

II. Common Carotid Artery Wounded by a Fish Bone Through Pharynx. By WALTER RIVINGTON, M.S., (London). The patient, æt. 9, was admitted into the London Hospital with a history of having swallowed, six days previously, a plaice-bone. A probang was passed without causing relief. On admission the symptoms were pyrexia, stiffness of the neck, œdema of the upper lids, profuse salivation and a small, tender lump on the left side opposite the cucoid cartilage. Drowsiness supervened, and inability to swallow solid food. Hæmorrhage occurred from the mouth on three occasions, the last being profuse. The left carotid was cut down upon and tied above and below the seat of injury. The operation was difficult, owing especially to inflammatory adhesions and uniform staining of all structures, including nerves and blood vessels. The fish bone was found in the centre of a clot. The patient lived ten days after the operation, dying from abscess of the brain on the left side, which had probably begun to form before the operation. The author remarked upon the mischief which was often wrought by the incautious passage of bougies and probangs in these cases. For treatment he advised improved illumination of the pharynx and œsophagus, and extraction of the foreign body with forceps; regulation of diet, administration of demulcents, and cautious use of the expanding probang. Œsophagotomy must be considered in some cases, but the peril in which life is placed by the occurrence of hæmorrhage renders prompt surgical interference imperative in all.—*Brit. Med. Jour.* 1885. Oct. 31. P. 832.

H. PERCY DUNN (London).

HEAD AND NECK.

I. Two Cases of Angina Ludovici. By Mr. ARTHUR BARKER. These two cases of the above disease are of considerable interest. The first is that of a lad æt. 18. Onset sudden. Caught cold, followed by toothache on right side. Swelling appeared on right side, extending to left side. On admittance to hospital patient was extremely ill; great fulness underneath chin and on both sides of neck, extending round the angles of the jaw. Swelling was brawny, with great prominence on floor of mouth. Could only swallow liquids. Breathing embarrassed. Fluctuation indistinct. An incision was made in middle line and dilated and deepened by sinus forceps. Only a drachm of thin, ichorous, extremely foul sero-pus came out. Foul pus continued to be discharged, and he developed some basic pneumonia, but ultimately did well.

The second a single woman, æt. 25. Considerable swelling and induration of neck in front and on each side, extending on the right side as far as the posterior border of sterno-mastoid, and on the left as far as the anterior border; upwards on the right side as far as the eye, causing œdema of the lids; downwards as far as the clavicle on each side. Floor of mouth very little swollen. Distinct blush over whole of swelling. No fluctuation. A deep incision was made in median line below chin, but no pus appeared. A fluctuating swelling appeared below this incision, which was opened, and pus discharged. Several other incisions were necessary from time to time, but patient ultimately recovered. Mr. Barker remarked on the prevalence of cellulitis about this time, and drew attention to the most common features of the disease, viz., debility at the time disease was contracted; a damaged spot in cavity of mouth suggesting inoculation of a specific virus; rapid extension of swelling, extreme hardness; presenee of this brawniness some time before the appearance of pus; thin ichorus, dirty nature of the fluid evacuated; high temperature during spread of disease; great depression and peculiar duskiness of skin combined with pallor; beneficial effects of early incision; free stimulation.—*Lancet*, 1885, Sept. 26.

H. H. TAYLOR (London).

II. Resection of Sup. Maxillary and Inferior Dental Nerves for Neuralgia. By Dr. W. T. BULL (New York). A night watchman, æt. 62, was admitted to the New York Hospital July 29, 1882. For several years he had had at intervals some pain in the right side of the face, which within a year had become more severe and almost continuous. He was rheumatic, had not had syphilis, and the history of malarial disease was doubtful. All sorts of medical treatment had been resorted to, and many teeth in both the upper and lower jaw had been extracted. When admitted he was suffering from the same pain, which was partly controlled by hypodermic injections of morphine. There were tender points over the infra-orbital and mental foramina, and over the condyle of the jaw. He was slightly emaciated, and could not eat solid food, and also had pain in talking.

August 11, 1884.—The superior maxillary was exposed in the floor of the orbit and three-fourths of an inch removed. The artery was divided and bled sharply. It was stopped with a plug of catgut which was continüous, with a few strands emerging from the centre of the wound. Peat and bichloride dressing were applied. The wound healed primarily in four days. One week later the inferior dental nerve was exposed by a vertical incision over the ramus of the jaw and by chiseling through the outer wall of its canal (Warren's operation). The incision was placed low enough to avoid Steno's duct; the fibres of the masseter, with the periosteum, were raised with the elevator, and the upper angle of the wound was strongly retracted. It was a narrow wound to work in, but there was little difficulty in removing a rectangular piece of bone, one-fourth by three-fourths of an inch in area. Three-quarters of an inch of the nerve were removed. In separating it from the artery the latter was wounded and tied with catgut. A small bone-drain was left in the wound, which was treated like the other. At the end of a week, when the dressing was removed, the wound was healed except at the orifice of the tube, and this closed promptly under an iodoform scab.

From the time of the operation the man experienced no pain whatever in the face, and there was complete anæsthesia over the areas supplied by the nerves. There was no facial paralysis. Now, fifteen months after the operation, he continued perfectly well. There had

been a dull aching in the lower jaw in damp weather, but it was trifling in degree, and did not increase in either frequency or severity.

There is complete anæsthesia on the right side of the face over an area included between two lines running from the outer and inner angles of the orbit downward to the line of the chin. It does not reach far back on the cheek, or much under the chin. It does not reach the lower palpebral margin, nor *quite* to the median line on the nose. In the lips and chin it extends *exactly* to the median line. It involves the gums and what teeth there are in the lower jaw on the right side up to the median line. At the outer, upper and nasal borders of the area the anæsthesia shades off into normal perception. On the lips and chin the anæsthesia is complete up to the median line, and the transition to normal sensibility is sudden. There is no anæsthesia of the palpebral conjunctiva of the right lower lid or the right internal canthus, or the gums of the upper jaw, or the tongue. There is no paralysis of any facial muscle. He has complained of his sight being weak since the operation. The fundus is normal and the vision good, but with the prism-test an insufficiency of the interni is revealed (probably the right) of 5° for distant vision and 12° for near vision, and he reads much better with a prism to correct that.—*Proceedings N. Y. Surg. Soc*, 1885, Nov. 10.

III. Stricture of the Œsophagus: Permanent Relief through Internal Œsophagotomy. By Dr. H. B. SANDS (New York). A woman, æt. 21, has a stricture of the œsophagus, seven inches from the incisor teeth, the result of the accidental swallowing of a solution of caustic potash when æt. 2. By gradual dilatation its calibre had been enlarged until a No. 23 French catheter would pass, but more than this the operator was unable to accomplish. Therefore, on the 9th of July, 1884, he introduced an œsophagotome, passed the bulb beyond the stricture, projected the blade 2.5 mm., and then withdrew it, making an incision in the posterior median line of the œsophagus. Immediately after the operation, which was performed without an anæsthetic and was attended by no hæmorrhage, he passed a No. 29 (French) bougie. Subsequently he carried the dilatation up to No. 34 (French). After the cutting operation, instruments were at first passed

every second or third day, and during the summer and autumn at intervals of three weeks. In December the interval between the introductions of the bougies was increased to one month, after the 1st of January to two months, and now there had been an interval of three months, without any diminution in the calibre of the œsophagus at the point where it had been divided. Soon after the operation, exploration of the œsophagus revealed the presence of another stricture, ten inches from the incisor teeth, which admitted a No. 24 (French). This was dilated up to 29, but beyond this he had been unable to dilate it.

The history of this patient may correct the common impression that all strictures of the œsophagus exhibit an invincible tendency to recontraction, and that the operation of internal division is unsatisfactory, because not likely to produce any permanent good result. In the case of a child upon whom he had performed several operations of internal œsophagotomy several years ago, for the relief of a stricture of the œsophagus, and in which instance dilatation was carried up to No. 29, the child improved in health, was able to eat solid food, and had remained well ever since. At the present time she swallowed as well as other children, yet no bougie had been passed for five months. These cases demonstrate that internal œsophagotomy may sometimes produce results which are permanent; and that, although the œsophagus may not be restored to its normal dimensions, it does not necessarily tend to contract below such dimensions as would permit of easy deglutition. The first patient referred to was now in good health, had increased in weight from ninety-six to 109 pounds, and was able to swallow liquids without difficulty, and, with care, to swallow solids when well masticated.

Strictures of the œsophagus closely resembled strictures of the urethra, in which there were found every grade of constriction and also a vast difference in the amount of tissue which caused them. In many cases strictures are limited to a very short part of the canal, and in those cases internal œsophagotomy would be likely to be followed by the greatest relief with a minimum amount of risk.—*Proceedings N. Y. Surg. Soc.* 1885, Oct. 27.

CHEST AND ABDOMEN.

I. Painful Mammæ in Young Girls. By I. H. MORGAN (London). The author states that he has had several cases of this painful affection of the mamma brought to his notice. The ages of the girls varied from $10^1/_2$ to 12 years. and most were tall and well formed. In five of the cases the left breast only was affected, in one case the right, and in another both breasts consecutively were the seat of pain. Believing that the tendency of the left mamma to become frequently affected was owing to the pressure of the chest against the desk while writing, he prohibited his patients from writing, but in none of them did the pain cease for many weeks after they had been kept from school. Although the cases were under observation for many weeks neither local nor general treatment was of much avail. The pain first became intermittent and then subsequently ceased. He thinks that the absence of any great heat, redness or swelling puts inflammatory conditions out of the question, and the age of the patient, the obstinate and chronic character of the pain, together with the slight enlargement of the gland and its extreme tenderness on pressure, would seem to point to some developmental change in the structure of the gland, which accompanies, or may even precede, the changes which are doubtless commencing about that period of life in the ovaries and organs of generation with which the mamma has so many sympathies.—*Brit. Med. Jour.* 1885. Oct. 17.

II. The Treatment of Pulmonary Cysts by the Establishment of Large Openings into the Sac, and Subsequent Free Drainage. By JOHN DAVIS THOMAS, M.D., (Adelaide, S. Australia). The author advocates in this paper the treatment of pulmonary cysts by surgical interference. From various sources he has collected the histories of thirty-two cases in which large openings have been made into cavities in the lungs in order to permit the escape of the mother cyst and any daughter cysts that might be present, and of these cases twenty-seven recovered and five died. The disease was met with at various ages, from one year upwards. The right lung was affected in nineteen cases and the left in five; in eight the side is not mentioned. Having accurately determined the position of the cyst containing cav-

ity, a free incision over its most superficial part is made down to the intercostal muscles. These latter are cautiously divided, and the scalpel is then pushed deeply into the cavity. A large trocar and canula may be used instead of the knife to perforate the cavity; in this way there is less risk of hæmorrhage from the wall of the sac. The opening into the sac is dilated to the necessary size by means of forceps. When the cyst is a large one, it may be necessary to make an opening large enough to admit the index finger, in order to permit expulsion of the contents. No injections are advisable after the operation, because the fluid by entering the bronchial tubes of the cavity is apt to cause violent cough. A large drainage tube of India rubber should be inserted and maintained in situ until the secretion of the discharge by the walls of the cavity has almost ceased. The dressing preferred by the author is a thick and large pad of picked oakum, enclosed in antiseptic gauze.—*Brit. Med. Jour.* 1885. Oct. 10.

III. **Enterectomy for Acute Intussusception.** By A. W. Mayo Robson (Leeds). The patient, a woman æt. 33, had enjoyed good health up to the time of pregnancy, which began about three months before admission into the Infirmary. Since pregnancy she had incessantly vomited after food. For seven days no action of the bowels had taken place, and the vomiting had suddenly increased in severity. On examination the abdomen was distended and rather tense. Two swellings could be felt, one to the right of the umbilicus, the other above the pubes. They were ill-defined, tender on pressure, and caused vomiting when handled. The vomiting was stercoraceous. Nothing was to be felt per rectum or per vaginam. Laparotomy was performed on day of admission. The incision, a median one, having been made, the tumor was soon reached and proved to be a large intussusception. After considerable difficulty the intussusception was relieved, but the invaginated bowel was to the extent of four feet found to be gangrenous. A ligature was passed through the mesentery of the sound intestine above and below the diseased region, and tied round the bowel just sufficiently right to prevent escape of the contents of the alimentary tract; the diseased mesentery was then tied in about twenty portions, and the whole of the gangrenous bowel and mesen-

tery removed. The sound mesentery was then on both sides joined by interrupted sutures and the ends of the bowel were put in apposition and united by union of fine silk sutures placed close together, passed through the whole thickness of the bowel and tied inside, except the last two, of which the knots were placed outside. In addition a series of Lembert's sutures were applied, in order to secure a broad apposition of peritoneal surfaces. The operation lasted two hours. Death took place from shock a few hours afterwards. At the post-mortem the situation of the sutured bowel was found to be 4 feet 2 inches from the commencement of the duodenum. The bowel was practically water-tight and the mesentery accurately sutured. There was no trace of peritonitis.—*Brit. Med. Jour.* 1885. Oct. 3.

IV. **Two Cases of Pelvic Hæmorrhage after Abdominal Section.** By JOHN W. TAYLOR (Birmingham). The first case was one in which the appendages on both sides had been removed by Mr. Lawson Tait. The pedicles had been tied with silk and the abdomen completely closed. In a few hours time the patient exhibited unmistakable symptoms of hæmorrhage. The abdomen was reopened and a quantity of venous blood was found filling the pelvis and extending for some distance among the viscera in the general abdominal cavity. The hæmorrhage was taking place from the right stump, some portion of the tissues of which appeared to have slipped out of the ligature. A fresh ligature was applied. The bleeding still continued a little, apparently from a point low down behind the uterus. A sponge was dipped in a weak solution of perchloride of iron and pressed down into Douglas's pouch and kept there while the sutures to the abdominal incision were being applied. It was withdrawn just before the sutures were tied and a large drainage tube inserted in its place. No subsequent hæmorrhage occurred, and the patient recovered. In the second case, the appendages on the right side had been removed and on the left neither ovary nor tube was distinguishable, although their supposed site was freely opened up by the fingers. From this situation considerable hæmorrhage occurred at the time of operation. It was controlled by sponge pressure and a drainage tube was left in the pelvis on closing the abdominal wound. Some hours afterwards the patient

was pulseless from blood which had flowed through the drainage tube. The abdomen was reopened and the bleeding found to be taking place from a somewhat ragged depression on the left side. A piece of solid perchloride of iron the size of a Wyeth tablet was pressed well into the cleft, the parts around having been previously made as dry as possible; the drainage tube was then replaced and the abdomen closed. The hæmorrhage soon ceased, the patient making a good recovery. The case was one operated on by Dr. Savage.—*Lancet.* 1885. Dec. 26.

H. PERCY DUNN (London).

V. On the Genesis of Certain Cases of Inguino-Interstitial Hernia and Inguino-Properitoneal Hernia. By Dr. M. SCHMIDT (Cuxhaven). S. became convinced by an observed case that the first form (Goyrand's) and the second (Kröunlein's) have a related and heretofore unrecognized cause.

His case was in a man æt. 20. On the right the testicle had always been wanting. No hernia up to a year previous. While straining at work he first noticed a tumor appear on his abdomen. On sitting down he reduced by gentle pressure. Nearly a year later it developed again over the right groin, but did not go back soon. Operation. The internal inguinal ring was found dislocated backwards and inwards with all its anatomical appurtenances. Through this passed a hernial sack, at the bottom of which was the right testicle, about one-third its normal size.

The assumption that this displacement was congenital explains the various facts well. The higher point of entrance of the processus vaginalis increased the length of the inguinal canal. This would not allow its ordinary length of growth to reach through the external ring into the scrotum, hence the testicle did not complete its descent. The smallness of the external ring he does not use to explain the retention of testicle, as did Goyrand, but rather believes it to be due to the non-perforation of the obliquus-aponeurosis by the vaginal process and testicle.

After considerable discussion, in part of other mostly negative cases, he formulates his conclusions thus:

1. In Goyrand's hernia inguino-interstitialis an external inguinal ring

may be found congenitally dislocated upwards and outwards, the existence of which readily explains the characteristic of this hernia, as also the frequently accompanying narrowness of the external ring and the retention of the testicle in the canal.

2. In many cases of Krönlein's hernia inguino-properitonealis the significance of the so-called common abdominal ostium of the hernial sack as a congenitally dislocated internal inguinal ring, appears to be irrefutable by any valid reasons. With this significance a simple explanation presents itself of the construction of the sack characterizing the hernia and of the frequently accompanying incomplete descent of the testicle.

3. To explain the origin of a congenitally dislocated internal inguinal ring, the assumption lies near at hand of a defective variation in the insertion of the inguinal cord of the primordial kidney in the abdominal wall.—*Arch. f. klin. Chirg.* 1885. Bd. 32, Hft. IV.

W. BROWNING (Brooklyn).

VI. The Indications for Laparotomy in Penetrating Stab or Shot Wounds of the Abdomen. Prof. STEPHEN SMITH, the chairman, in the surgical section of the New York Academy of Medicine, remarked on the frequency of these injuries and the importance of the question of the propriety of operative interference, and referred to the fact that explorative laparotomy, with proper precautions, had come to be considered as by no means as formidable an operation as formerly, which, if true, removed one of the great obstacles to the successful treatment of these wounds.

Prof. J. D. BRYANT did not think that laparotomy should be performed in all cases immediately after the accident, and that it should not be attempted even in so-called favorable cases unless the operator could avail himself of many of the recognized means of procedure necessary to combat the shock of the operation, and was sufficiently familiar with the operation to act with accuracy and rapidity. He did not consider that the explorative incision exposed the patient to unusual danger. The points to be considered in a case of penetrating abdominal wound, and not as prominent in ordinary laparotomy, are, (1) doubt as to injury of the abdominal viscera, (2) shock arising in

the great majority of cases from loss of blood, in which case the hæmorrhage should be checked at once, (3) unfavorable surroundings, (4) unskilled operators, (5) greater exposure of the abdominal cavity and its contents in the painstaking examination necessary, in which not time, but care and completeness only, should be considered, (6) hæmorrhage, a suspicion of which is sufficient to indicate an exploratory incision, (7) extravasation of intestinal contents, which constitutes the strongest indication for laparotomy, and (8) the greater difficulty of cleansing the abdominal cavity and contents, the thorough performance of which appears to be the only means of saving life.

Prof. R. F. WEIR remarked that a more expectant plan of treatment could be pursued with respect to stab than shot-wounds, since the lesser impetus of the knife would be more likely to allow the intestines to escape. Reference was made to the fact that the wounds of the intestine were usually multiple. Referring to the danger of hæmorrhage, he suggests the introduction of a sponge, attached to a stick, through an incision in the median line or the wound enlarged, to determine whether such a condition exists or not. He was strongly in favor of laparotomy in treating gunshot wounds of the abdomen when the general condition of the patient warranted it.

Prof. W. M. POLK, speaking of laparotomy from a gynæcological standpoint, considered the increased percentage of recovery in laparotomy to be due to smaller incisions, the less handling of the peritoneum, and greater operative dexterity, by which shock and peritonitis were avoided to a greater extent.

Prof. A. C. POST noticed the difference in the danger of abdominal wounds depending upon the differences of locality, the greater danger of fæcal extravasation in wounds in the umbilical than in the epigastric or hypogastric zones, and the less danger of wounds of the stomach than of the intestine. He related a case of wound of the epigastric region with protrusion of the omentum, treated successfully by rest and starvation. He mentioned a case of persistent fæcal fistula resulting from an attempted introduction of an aspirator needle into the urinary bladder, and detailed a case in which a man received a shot-wound of the lower part of the abdomen, where a greatly distended bladder received the impact, saving the bowels, the patient recovering without

any very formidable symptoms. He considered that laparotomy, with thorough washing of the contaminated parts, greatly diminished the danger in penetrating wounds of the abdomen, attended with fæcal, urinary or biliary extravasation or copious hæmorrhage, and alluded to Lawson Tait's practice of irrigating the abdominal contents with warm water.

Prof. W. G. WYLIE differed from Dr. Polk as to the prominence of shock as a cause of death in older operations, and attributed the fatal result in at least four-fifths of the cases to sepsis, believing shock to be feared chiefly in cases of large vascular growths. The intra-abdominal tension being very great, when the cavity is opened, the blood vessels of the tumor become distended, thereby depleting the rest of the system, which may be the cause of shock. He would force this blood back into the system and irrigate the parts well with antiseptic solutions.

Dr. C. S. WOOD would treat these cases conservatively, not operating until necessity demands; in large cities where all operative appliances are at hand, operation may be advisable, but in the absence of these it is doubtful.

Prof. A. C. BERNAYS (St. Louis, Mo.) emphatically favored laparotomy in all cases, relating a case of stab-wound operated upon successfully by Dennis by stitching the wounds and replacing the bowel; also a case of shot-wound where, in spite of fæcal discharge from the external opening, persisting for several weeks, the patient, a child, recovered, with practically no treatment but rest.

Dr. G. G. HOPKINS (Brooklyn) believed that the fact of incision in the median line through the minimum amount of tissue explained the better results in cases of abdominal section in gynæcology and advised the same incision in cases of abdominal wounds.—*N. Y. Med. Jour.* 1886. Jan. 2.

VI. **Explorative Laparotomy.** By G. R. FOWLER, M.D. (Brooklyn, N. Y.). Opening with a discussion of the different methods of operating, from the strictest antiseptic precautions down to none at all, and, though strongly in favor of the use of antiseptics himself, recognizing the fact that those who ignore antiseptic agents obtain

nearly if not quite as good results as the most enthusiastic devotee of antiseptics, he holds that "success in the surgery of the abdomen, other things being equal, seems to consist in and depend upon carrying to definite length carefully matured plans and purposes." Manual dexterity may compensate for inattention to germicidal precautions. Four classes of cases may demand explorative laparotomy: 1. Those in which a diagnosis is impossible otherwise, but in which further interference is shown by the operation to be impracticable or unnecessary. 2. Those in which only a provisional diagnosis can be made, but, some action being necessary, there is but little additional risk in laparotomy to settle the diagnosis, while with but little additional risk, a radical cure can be obtained, as in cases of chronic ovaritis or salpingitis, with or without hydro or pyo-salpinx, diseased conditions of the vermiform appendix, etc. 3. Those in which a diagnosis has been made but a doubt exists as to the propriety of a radical operation, and those in which the choice of the best operation must be made after the abdominal incision, as in most cases of abdominal and pelvic growths, chronic intestinal obstruction, uterine fibromata, etc. 4. Those in which imminent peril to the patient's life demands the prompt location of the threatening lesion and such prompt action for its relief as may be indicated by the knowledge gained by opening the peritoneal cavity, as in shot or stab-wounds, internal hæmorrhage from ruptured vessels, perforation of the intestines, etc. Robbed of most of its terrors, as it is by modern methods, the operation is believed to be indicated more frequently and earlier than has hitherto been the practice.

In the discussion of Dr. Fowler's address before the Kings County Medical Society, Prof. A. J. C. SKENE advocated a more conservative course. The operation should be performed only when there was good reason to expect more than to simply make a diagnosis, and he deprecated the performance of operations upon the abdominal cavity by practitioners not possessed of the diagnostic skill and manual dexterity acquired by extensive experience. Prof. L. S. PILCHER referred to the great uncertainty of diagnosis felt by even the most experienced operators, and while favoring germicidal precautions in general, cited Lawson Tait's results with simple water irrigation as showing that nearly all of the necessary conditions for operation would be found in the

average home. And while conditions might be found so extensive and perplexing as to require for their treatment great experience and skill, yet an exploratory procedure might reveal a condition which demanded certain action in order to prevent certain death. Men of special skill not being available, he thought that the greater number of physicians would operate, since the certainty of death from inaction would justify them in making this attempt to save the patient. While the decision of the question should be left with the physician himself, there was certainly a field for explorative laparotomy into which the general practitioner might enter.—*N. Y. Med. Jour.* 1886. Jan. 2.

EXTREMITIES.

I. **Covering the Hand with Skin Transplanted from the Chest.** By ALFRED NORTH, M.D. (Waterbury, Ct.), A brass-roller, æt. 26, had nearly all the skin of his left hand stripped off by machinery, several small patches only being left. The little and ring fingers were lost and a portion of the middle and index fingers. During the month following the patches extended rapidly, but the greater portion of the hand still remained uncovered. Small grafts were introduced, and it was ascertained that the best results were obtained (1) by passing a thread through the graft and stitching it to the granulations, (2) by passing a thread through the granulations on either side of the graft and tying the ends over it, or (3) by making a small flap of granulation tissue with the scissors, raising it up and placing the graft under it. Considering this method too slow, about three weeks later a band of skin was dissected up from the chest, ten inches long and two and a half wide, both ends remaining attached; the free edges of the skin on either side of the flap were dissected up for an inch or more and approximated as nearly as possible. The hand was thrust beneath the band, the edges of which were secured to the freed edges of the skin remaining at the base of the fingers and the wrist on the back of the hand, the whole dressed antiseptically and immobilized; the graft adhered promptly and well. Nine days later the upper end of the band was extended about three inches, freed from the chest and drawn over on to the palm of the hand. About one-half of the second flap having died, five days later, the lower edge of the flap was extended four

inches, freed from the chest and brought over on to the palm of the hand; about two-thirds of this flap died, and the middle of the palm was left exposed. An attempt to fill this with a graft from another person was unsuccessful. Cicatricial contraction was combatted by multiple incisions across the hand and fingers. Sponges laid into the incisions and over the granulations proved of advantage in stimulating the growth of the latter and the rapid filling up of the former. The great advantage of the transplantation of large flaps over ordinary skin grafting lay in the short time in which a cure was obtained, the greater portion of the denuded surface being covered in two weeks where it would have ordinarily taken months.—*N. Y. Med. Rec.* 1886. Jan. 9.

GENITO-URINARY ORGANS.

I. **Two Cases of Renal Surgery.** By F. LANGE (New York). (1) Lumbar nephrotomy was performed for simple pyonephrosis, but in the pelvis of the kidney was found a considerable number of irregular shaped calculi, which were apparently scattered in all directions through the recesses of the calices: thin partitions had to be broken through to find nests of stones, and although finally no more could be found, the operator was morally convinced that they were not all removed. The patient did well and was discharged practically cured after six weeks. A few weeks later the patient was attacked with acute obstruction of the ureter on the other side. The left side was first explored and a considerable quantity of calculi removed, and then the right kidney was exposed and found to be affected with an abscess which was about to perforate. The pelvis was opened and in the ureter was found a whitish gray plug, consisting of an old fibrinous clot, in which watery substance and numerous gravel like concretions were imbedded. In this case there were no symptoms of stone, although six drachms, varying in size from a pea to a hazel-nut, were found. (2) The diagnosis of pyonephrosis complicated with renal calculus had been made by a number of experienced surgeons, but upon lumbar section no stone was found; the kidney having become cystic and composed of a large number of cysts containing flocculent pus or watery material and its functional value having been destroyed, nephrectomy was performed. *Med. News.* 1886. Jan. 16.

II. Hydrocele of the Hernial Sac. By T. E. McArdle, M.D., and L. Kolipinski, M.D. (Washington, D. C.). Struck by the assertion of a well-known text-book that the affection was excessively rare, not more than six cases being on record, the writers have made a study of the subject and quote twenty-four authentic cases. The name is a misnomer, dropsy of the hernial sac being better, and classing it distinctly among watery effusions of serous cavities. It is an acute or chronic condition, due to an inflammatory process, and occurring in a hernial sac, the neck of which is occluded. It may occur (1) at the same time as the rupture, (2) after the formation of the hernia, or (3) in an old hernial sac in which there is no hernia. The majority of cases occur in males and in inguino-scrotal hernia, but it may occur in either sex or in any variety. Schreger's four classes are: (1) the prolapsed parts occupy the upper, the hydrocele the lower part of the sac; occurring chiefly in congenital inguinal hernia; (2) the prolapsed parts fully occupy the sac, the fluid filling the interspaces and being external to the hernia, but not at the fundus of the cavity; (3) the fluid fully fills the sac with a small knuckle of gut or omentum protruding into it; (4) a small hernia succeeds a congenital hydrocele, the hernia not protruding, but contained within the inguinal canal. Produced by an inflammatory serous exudation from the peritoneal lining of the sac and the peritoneal covering of the prolapsed parts, it is necessary, in order to produce a hydrops of the hernial sac, that there should be an occlusion of the hernial sac, produced by adhesive inflammation, which seals the cavity and may spread to contiguous tissue. The amount of fluid varies from a few ounces to three or four quarts. It almost invariably originates in traumatism. In chronic cases the presence of a large fluctuating, more or less translucent tumor, occupying the site of a hernial sac and by the touch and shape indicating the nature of its contents, renders diagnosis easy; in the acute, the patient having been subject to traumatism, the hernia, heretofore reducible, has increased rapidly and can not be made to diminish in volume by manipulation; there are local pain, tenderness and heat, locomotion is avoided, the patient lies recumbent, while his general condition is not affected; there are no evidences of sudden strangulation and the natural course of the process would be disappearance

or the chronic state; on palpation we have fluctuation and on inspection translucency. Except as it may cause errors of diagnosis, the disease is not a grave one. It must be differentiated from simple hydrocele, and encysted hydrocele of the cord high up, and, from the hernial peritonitis or false strangulation of Malgaigne, and from true strangulation. The methods of treatment vary from tapping and injecting iodine and from opening up the sac to local antiphlogistic applications.—*Med. News.* 1886. Jan. 9.

J. E. PILCHER (U. S. Army).

III. An Urethro-Plastic After Fracture of the Penis and Gangrene. By Dr. ROSENBERGER (Würzburg). A man, æt. 26, injured his penis by stubbing it while erected against the symphysis of his wife. It immediately began to swell, without pain. He did not consult a doctor for four or five days, when a catheter had to be used. Rapid increase of the swelling, extending to the thighs and abdomen. From the tenth day catheterization was impossible, and an incision had to be made in the scrotum towards the perineum. Gangrene of scrotum reaching to right thigh. Profuse suppuration, involving cellular tissue in thighs and abdomen, to some extent. The scrotum, except a narrow border on the left, sloughed off. The urethra in a length of 3 ctm., had only preserved its upper arch, and for this a plastic operation was determined on. A narrow flap was taken from the right thigh, reversed and sewed to the prepared up edges of the urethral remnant. A little of its upper portion mortified, but the remainder united. Later a second flap was made from the left thigh and the border remnant of scrotal skin, and then a third flap was brought down from the abdominal wall. A small portion of the urethra had not united, perhaps because of erections. A fourth operation closed this flap, and, to prevent erectile stretching, he ran a suture through the preputium and tied it to a firmly adherent flap. At one point there was a small recurrent fistula from growth of hair.—*Arch. f. klin. Chirg.* 1885. Bd. 32, Hft. IV.

W. BROWNING (Brooklyn).

IV. Descending Testis in an Adult. Mr. E. H. FENWICK. At the Medical Society of London, held December 7, Mr. Fenwick

showed a case of descending testicle in a man æt. 23. At the age of 49 a strangulated hernia developed and was reduced, when, to the man's surprise, it was found that two testicles were present in the scrotum. Prior to the strangulation there was but one small descended testicle. The only case that so nearly attained this age was one recorded by Professor Humphry in a man æt. 40. Since the descent of the testicle the man had become the father of a child, though previously twice married, he had had no issue. Mr. Alban Doran suggested that undescended testicle was probably but an association of general want of sexual development. Mr. J. H. Morgan illustrated and supported this suggestion by the narration of a case of absence of anus, in which the left half of the scrotum was not developed, but a testicle of minute dimensions was found during operation in the left side of the perineum.—*Lancet.* 1885. Dec, 12.

V. A Case of Vaginal Lithotomy. By CHAS. WILLIAMS, F.R.C.S. Ed. S. C., æt. 62, admitted into Norwich Hospital, evidently considerably emaciated from suffering. Maternal grandfather suffered from stone in the bladder. During past few months had voided thirteen small grey calculi. Urine sp. gr. 1,015, contained mucus and pus in large quantity. Bladder contracted on large calculus, forming large, smooth tumor projecting into vagina. An incision was made into vesico-vaginal fold, and with some difficulty calculus was extracted. Stone weighed 7 ounces and measured 8¼ inches in circumference. Patient did well at first, but gradually sank and died. Post-mortem. Right kidney enlarged to three times normal size; pelvis converted into an abscess; ureter of this kidney firmly blocked about two inches from origin by a calculus. Left kidney considerably hypertropied. The records of the hospital show that from 1771 to 1884, 1,234 cases of stone were treated, only fifty-two of this number being females, a proportion of one female to twenty-four males. In twenty-one cases the calculi consisted of uric acid and urates; in twenty-one of mixed phosphates; in seven phosphates and urates the rest mixed.—*Lancet.* 1885. Nov. 7.

H. H. TAYLOR (London).

WOUNDS, INJURIES, ACCIDENTS.

I. The Art of Primary Union, or Union by Adhesion in Large Incised Wounds. By F. H. HAMILTON, M.D. (New York). The purpose of this paper is to combat the theory of the value of antiseptics in wound treatment, and the name of its distinguished author entitles it to careful attention. The conditions requisite to secure primary union are considered to be (1) fair health, especially the absence of any systemic infection or dyscrasy; (2) the removal from the wound of foreign bodies, among which are included blood and serum; (3) the effusion of a moderate amount of coagulable lymph, and (4) no unnecessary violence to the parts in operating. Attention is called to the division of the history of wound treatment into two periods, (*a*) the earlier, in which they were left open to unite by granulation, and (*b*) the later, when union by adhesion was sought for, beginning in the latter part of the eighteenth century, and to the fact that in the latter period little confidence was felt by many surgeons in obtaining primary adhesion, because of the great frequency of failure. To secure this result the utmost care and attention to details is required of the operator, the lack of which was the most frequent cause of failure. This was seen to a marked extent in military practice, where leisurely care was impossible. It was also observed that anæsthetics had a considerable unfavorable influence, in explanation of which the writer records the observation that, under anæsthesia "the muscles do not quiver and retract under the knife, that they hang apparently lifeless from the wound, as in the cadaver, and that they do not resume their normal contractility until some hours after the operation is completed, the arterial blood is imperfectly oxidized, and the surface of the wound has a dark grumous look, wholly unlike the appearance presented under other circumstances; the effusion of lymph, producing the glazed appearance essential to primary union, may then be reasonably expected to be delayed even until beyond the period of possible primary union." He discusses the claims of Lister, to a considerable extent, and attributes his success to careful methods and procedures, rather than to antiseptic precautions, but acknowledges our indebtedness to him for having restored confidence in union by adhesion, and refers to

Tait's results in the belief that they ought "to dispose forever of the much discussed question of Listerism in abdominal surgery." He represses his skepticism as to the *rôle* played by germs in preventing the healing of wounds, referring in sarcastic vein to the criticisms of antiseptists upon the treatment of the case of President Garfield, in which he was one of the consulting surgeons. He disapproves of the substitution of bone for rubber drainage tubes because of their shortness and inflexibility, and seems to prefer silk sutures to those of metal, horse hair or catgut, considering the only advantage of the latter to be its absorbability, while, on the contrary, it is neither as flexible nor as fine as the finest silk, and, according to his observation, has as great a tendency to form small abscesses. After a tribute to the value of hot water as a means of imparting a healthy stimulus to paralyzed tissues, of arresting capillary hæmorrhage, of removing the blood from the surface of the wound, exposing the ends of the vessels to the ligature, and of coagulating the albumin, while, unlike carbolic acid, corrosive sublimate and the like, it is absolutely innocuous, he closes by expressing his belief that the tide of professional opinion is setting strongly toward a rejection of the doctrines of Lister.—*N. Y. Med. Rec.* 1886. Jan. 2.

II. Glycerine as a Surgical Dressing. By S. C. GORDON, M.D. (Portland, Me.). On the hypothesis that excess of blood, beyond what the nutritive process can utilize, interferes with normal repair, and that any portion of the blood, particularly the serum, in a wound or beneath the united surfaces, will have the same effect, the writer has conceived of *surface drainage*, in addition to ordinary deep drainage by tubes, so as to prevent suppuration by carrying off all serous effusion. Recalling the well-known property of glycerine of draining and depleting tissues, as seen in gynæcology, he applied it to surface drainage, with, he states, the happiest results. After securing cleanliness in the operation wound, he first squeezes out pads of absorbent cotton in hot water, then in glycerine, and applies them directly to the wound, bandaging them firmly down. He reports cases of ligature of varicose veins, amputations of the hand and breast and Tait's operation for removal of the uterine appendages, in all of which the results

were unexceptionable, and seemed to fully demonstrate the value of the dressing.—*Boston Med. and Surg. Jour.* 1885. Dec. 31.

J. E. PILCHER, (U. S. Army).

ABSCESSES, TUMORS.

I. On the Space of Retzius and So-Called Prævesical Abscesses. By J. F LEUSSER (Würzburg). The occurrence of such an abscess in Maas' clinic gave occasion to this study of the subject. The cavum Retzius is the prævesical or præperitoneal space. The anatomy of the parts is given first, based on the works of previous authors and the examination of five male and of five female subjects. He finds that the cavum Retzius is divided by the transverse fascia of Cooper into two spaces; (1) a cavum submusculare (so-called by Pauzat, better, perhaps, cavum suprapubicum), extending upwards from the symphysis, and (2) a cavum prævesicale (or, from its position, better cavum retropubicum).

From this it follows that abscesses may be either submuscular or prævesical.

As to their etiology he divides them into idiopathic and symptomatic (originating by continuity). The idiopathic form may arise from trauma, local exudation of blood in exhausting diseases, perhaps from colic (strong contraction of the recti muscles depriving local vessels of accustomed support).

Local abscesses after operations (laparotomy, etc.,) are of course not considered. Some really idiopathic cases still remain. The sympathetic form occurs mostly in the prævesical space. It arises from diseases of adjacent parts, bladder, uterus, rectum, prostate (though here the tendency is more towards the sides of the rectum), pubic bone, and troubles following parturition or abortion. Perhaps urethral disease may also be a secondary cause.

The said dividing fascia, though thinner in its lower portion, is in most cases, though not always, sufficient to retain the abscess.

The submuscular form is usually idiopathic. It also less frequently causes urinary and other pelvic symptoms, and even fever. The shape of the tumor is here more egg-shaped, with its base upwards, or irregular in outline, while the prævesical form is more spherical, arising

from the pelvis like the distended bladder. In the latter form fluctuation is more readily determinable through the rectum or vagina.

Occasionally these abscesses are resorbed. The prævesical, if left, may rupture in any direction, the submuscular through either the peritoneum or abdominal wall.

In the first stages diagnosis is difficult. The pain, in contradistinction to enteralgia, is constant, and not relieved by pressure. The prognosis depends largely on early recognition and operation. Perforation of the peritoneum is of course one of the chief dangers. Contrapuncture—after external incision—through the vagina has been practiced in the deep form, but may perhaps not be necessary in view of the recent results of suprapubic cystotomy.

Maas' patient was a tailor, æt. 50, in whom a submuscular abscess had developed without stated cause. Of this form he sums up seventeen cases, of the prævesical twenty-nine—eleven idiopathic and eighteen symptomatic, or secondary by continuity—making a total of forty-six.—*Arch. f. klin. Chirg.* 1885. Bd. 32. Hft. IV.

W. BROWNING (Brooklyn).

II. **Melanotic Sarcoma of the Rectum.** By CHARLES B. BALL (Dublin). The author points out that primary melanotic sarcoma is a disease of extreme rarity in the rectum, and, according to Virchow, this is the only portion of the intestinal tract in which it has been observed. In the author's case, the patient, a woman æt. 60 had suffered from rectal trouble eleven months before admission into the hospital. The pain during defæcation was great and was referred to a point immediately above the symphysis pubis. She was also troubled with pruritus. On examination the anus was normal and the sphincter not unduly relaxed. Two tolerably hard tumors could be felt, evidently involving the mucous membrane, about one inch from the anal verge. No glandular enlargement could be felt in the hollow of the sacrum, nor was there apparently any disease of the liver or of other abdominal organs. The disease was removed by the usual method. No attempt was made to suture completely the divided portions. The patient made a good recovery. Some time afterwards she was absolutely free from pain and discomfort of any kind, and was able to follow her occu-

pation as a cook. She had complete control over her motions and there was no evidence of recurrence. As far as could be ascertained, the disease originated in the submucous tissue.—*Brit. Med. Jour.* 1885. Oct. 10.

III. **Tumor of Spermatic Cord Simulating Hernia, Causing Sloughing of the Scrotum; Operation; Cure.** By Mr. SPANTON (North Staffordshire Infirmary). A lad, æt. 15, had observed some months before admission a swelling in the right groin, sometimes reaching into the scrotum, at others passing up the inguinal canal out of sight. The tumor had all the characters of an omental hernia. One day sickness suddenly supervened, with great pain in the neighborhood of the tumor and constipation, and in addition to this it was found impossible to reduce the swelling. The scrotum became œdematous, the induration around the cord increased and the symptoms strongly resembled an inflamed and strangulated omental hernia. On admission the right side of the scrotum was inflamed and œdematous, the testicle could not be felt. An incision was made over the right spermatic cord which revealed a sloughy condition of the subcutaneous tissue. After dissecting this away a hard mass occupying the position of the cord came into view, extending up to the external abdominal ring about two inches in length and about the size and shape of a large pigeon's egg. A ligature was placed as high up on the cord as possible, and the whole mass with the right testis dissected away. The wound healed rapidly. The growth when cut into was almost of cartilaginous hardness and consisted of dense connective tissue. When it became inflamed the vessels in the cord were probably compressed and thus sloughing of the parts concerned took place. From notes by S. Cann. *Lancet.* 1886. Jan. 2.

H. PERCY DUNN (London).

BONES, JOINTS, ORTHOPÆDIC.

I. **On the Etiology of Indirect Fractures of the Shaft of the Radius.** By Dr. R. FALKSON (Königsberg). Statistics are first given of 155 cases of radius fracture observed in three years. Amongst these were three of fracture in its middle third, all originating in a similar manner.

1. Boy æt. 14 was trying to hold back a heavy weight by pressing with the flat of the hand against a support, The weight seems to have caught his forearm lengthwise. He felt a sharp pain and could no longer use his arm. The fracture was between middle and upper thirds. Moderate axial dislocation to the flexor side. Crepitation.

2. Man æt. 18. Pushing along between two ships by means of his hands against their sides. Blow on the elbow from a cable knot. He felt a snap and intense pain. Fracture in middle third.

3. Powerful man, æt. 28. While trying to push off a ship, it lurched and drove his elbow against the dock, causing a somewhat oblique fracture at just about the middle.

Only in Bardeleben does he find it stated that this fracture usually results from direct force. Other writers state the contrary.

In F.'s cases the hand was in about rectangular dorsal flexion, in which position the ulna and radius are crossed and most of the force is transmitted to the latter. The slightly curved form of the radius also weakens its resistance.—*Centbl. f. Chirg.* 1885. Dec. 25. No. 52.

II. Spontaneous Dislocation of the Femur in the Course of Acute Infectious Diseases. By Prof. SONNENBURG (Berlin). This rare affection may occur in such general infectious diseases as variola, acute articular rheumatism, and especially typhoid fever. For dislocation of other joints he refers to Gueterbock (1873, shoulder) and Verneuil (1883, knee).

There are various hypotheses as to the origin of these cases. Some former ones may in reality have been osteomyelitis. The most probable view is that in cases without suppuration there is a dropsy of the joint with relaxation of the capsule. Others assume that suppuration is always present; while Verneuil and also Reclus (1883) teach that it results from the action of certain groups of muscles (flexors and adductors whose antagonists are paralyzed.

Two new cases are described.

1. Girl æt. 18. Fell from a chair a year previously and had some pain in the knee. Shortly afterwards she had typhoid fever. On getting over this she noticed a change in the left leg. It was so much

flexed, shortened and turned outwards that she limped badly. Extension had been tried, but to no purpose.

There had been a dislocation of the hip-joint forwards. It was also found (under chloroform) to be ankylosed.

S. first chiseled through the neck of the femur, whereby the flexion was practically remedied—not so the adduction and shortening. Later he chiseled through the femur below the trochanter. The leg could now be brought into about its normal extended position.

2. Boy æt. 12. Admitted in February, 1885. Small-pox in October, 1884, since which time he has kept his bed. When nearly well of the pox he suffered from pain in arms and legs, especially in left shoulder and hip. Immobility of left arm then appeared. S. found an almost complete ankylosis of the left shoulder and a dislocation of the femur backwards and upwards. The head of the femur pressed firmly on the pelvis, but was not entirely ankylosed. This displacement appears to have developed gradually. It was reduced to the old position as well as possible. After extension for three or four weeks the boy was allowed to walk with a Taylor apparatus.—*Arch. f. klin. Chirg.* 1885. Bd. 32. Hft. IV.

III. **Exsection of the Knee-Joint in Children.** By Dr. A HOFFA (Würzburg). In view of the recently recommended substitutes, arthrotomy and arthrectomy, H. has made a study of the later results of resection, especially as regards its preventing general tubercular infection. This operation is now so successfully done that a number of operators have reported series of twenty to thirty without a fatal case. Moreover, improved wound treatment has materially shortened the duration of cure, from four to thirteen months down to even one to two, the formation of an ankylosis included. His collection represents 130 cases—nine of which he has added where the children have been examined at least a year post operationem and in most cases much longer. A brief sketch of each is given, These show that in the great majority of cases the local tuberculosis can thus be cured. In five cases fistulæ still persisted. In some cases, however, abscesses and fistulæ develop shortly after the operation, thus making the child's condition worse. To estimate the frequency of this he adds up the number of

after-amputations in several series of published cases, together with twenty-five from Maas' clinic—eleven amputations in 195 cases, or 6%. Now even the most careful removal of all morbid tissue does not surely protect from relapse even after exsection. How much less certain then must this be after the partial operation of arthrotomy, resp. arthrectomy? Of the children who, despite the operation, die from some form of tuberculosis, he reckons up thirteen amongst 186 or 7%. Most of these doubtless were suffering from tuberculosis of some internal organ at the time of the operation.

The functional success of an exsection of course depends on the result desired. Ankylosis is usually hoped for; on the other hand, retardation in the growth of the limb and contracture are not. As to shortening, it is necessary to distinguish between cases where the epiphysal line is preserved and where it is not. His cases of the removal of both epiphysal lines show that at the end of ten years the shortening may amount to $25^1/_2$ ctm., while in another case it amounted in two years to 10 ctm. The shortening in most cases corresponded to the time elapsed. It was, however, so far remedied by tipping of the pelvis and by high soles that the extremity was still useful.

Where only one epiphysal line is destroyed there is still shortening, though less. Loss of the femoral line showed 17 ctm. shortening in 6 years and 7 ctm. in $1^1/_2$ years. Two cases of like duration affecting the tibial line showed $15^1/_2$ resp. 6 ctm.

The cases where these lines were preserved he considers most important. These do not show a gradually increasing shortening as clearly as the previous series. It amounted in one case at the end of six years to $13^1/_2$ ctm.; in other even older cases it was much less, and up to the end of two years it never exceeded 5 ctm.

In many cases of tubercular joint disease, however, a shortening is demonstrable on their entering the hospital; this may be great in cases which heal in the course of years without resection. In one such it amounted at the end of 12 years to 18 ctm., with ankylosis at an angle; in nine of these cases collected by Caumont, ranging in duration from one to eight years, the shortening varied from 1 to $13^1/_2$ ctm., with angular contracture in most cases. Here atrophy and trophic disturbances are very marked. In equally bad cases exsection gives better results.

To save the epiphysal line König's rule is valuable: "Saw off inside the extent of the cartilage." After this any remaining morbid deposits must be scraped and chiseled out. A permanent dressing hastens cure, renders early use of the leg possible and thus limits atrophy.

Angular contracture is a much worse sequence than shortening. It was more frequent formerly than now. In his list he finds twenty-four cases of slight and thirty of large flexion noted. The former result is, however, frequently intentional. The cause of the greater permanent flexion in some cases is disputed. It may follow in adults, as in a case which H. gives, but this is rare. He finds that it always begins early. It is known that the extensors atrophy earlier than the flexors, and that the latter are normally the more powerful. If the bony surfaces are so coaptated as to make a slight bend then contracture results the more easily. Dispensing with supports too early also predisposes. These factors, he thinks, suffice to explain the cases of flexure. Bony ankylosis is the surest preventive, though as to the frequency of such ankylosis there is also a dispute. He gives a case of Maas', girl æt. 16, where bony union of the anterior portion of the surfaces was found at the autopsy one and a half years later. He recommends Hutchinson's tenotomy of the flexors in severe cases where the cure will probably be slow. He finally details Maas' latest approved method: 1. Strict antisepsis. 2. Straight, not oblique, sawed surfaces. Removal of any remaining deposits in the bone. Extirpation of all soft articular structures. Washing out the joint with tincture of iodine. Tenotomy of the flexors. Wiring the bones. Series of sutures to the soft parts. Button-hole drainage. 3. Permanent antiseptic dressing. 4. After removal of this dressing a fenestrated plaster bandage and application of iodine tincture to the cicatrix. 5. Wearing a support (waterglass bandage) for at least a year.—*Arch. f. klin. Chirg.* 1885. Bd. 32. Hft. IV.

W. BROWNING (Brooklyn).

IV. Case of Simultaneous Dislocation of Both Ends of the Clavicle. By G. W. HULKE (London). The patient, a woman, æt. 39, was knocked down by a cab, the knee of the horse striking her in front of the shoulder and above the breast. On admission the

left clavicle was found to be completely dislocated at both ends. The left shoulder had fallen forwards and inwards, and the head was inclined towards the left side.

The sternal end of the clavicle rested on the upper part of the anterior surface of the manubrium sterni, forming a marked projection beneath the skin. The acromial extremity was displaced backwards and inwards, resting on the scapular spine opposite its junction with the acromial process. Thus the long axis of the bone was found to be placed in an antero-posterior rather than in the normal transverse direction. Both the manubrial and the acromial articular facets could be plainly felt as concavities beneath the skin. By drawing the shoulders backwards the bone slipped easily into position, but on relaxation the luxation was immediately reproduced by the slightest action of the trapezius or sterno-mastoid muscles. After reduction the bone was kept in position by means of a gutta-percha splint fitted to the shoulder, reaching slightly past the mid-point of the sternum in front. On the twentieth day the patient was allowed to get up, and the splint was left off; the arm was carried in a sling. It was noted that the sternal end was a little above its true position, and the point of the shoulder a little lower.

In some excellent remarks which accompany the notes of this case it is stated that the case derives its interest from its great rarity, two other cases only being previously recorded—the first a very incomplete published account, by Richer and Geidy, and the second an excellent observation by Morel-Lavallée. (From notes by Leopold Hudson).—*Lancet.* 1885. Aug. 8.

H. Percy Dunn (London).

V. Intra-Articular Inflammatory Adhesions After Wiring a Simple Fracture of the Patella. By Dr. L. A. Stimson (New York). The reporter had had the opportunity of observing the condition of a knee-joint two months and a half after the patella had been wired for a simple fracture. The patient, a man æt. 21, came to Bellevue Hospital last June with simple fracture of the patella, and was treated by one of Dr. Stimson's colleagues by making a transverse incision and wiring the bone with silver wire, two sutures being

inserted. The case did perfectly well, and the patient recovered without any elevation of temperature or manifestation of trouble in the joint. When Dr. Stimson first saw him, two months and a half after the operation, the fragments were closely united, without independent mobility, and the patient was walking about the wards with a condition of the knee which allowed the joint to move through the arc of a circle of about 20°. About one week afterward, while descending the stairs without falling, stepping down with the sound leg forward, he fractured the patella which had been broken. Previous to the accident Dr. Stimson had noticed what seemed to be one of the wire sutures which could be felt under the skin, and the patient had felt a slight pricking pain at that point throughout the progress of the case. In the second fracture the old cicatrix was torn open. Dr. Stimson enlarged the wound, and found that the second fracture had taken place exactly in the line of the first; one wire was entirely, the other almost entirely, loose in the wound, and the site of each was marked by small cavities in the fragments. The surfaces of fracture were not so rough as usual, and Dr. Stimson thought that union had taken place, in part at least, by a very thin intermediate layer of fibrous tissue. On the inner corner of the upper fragment, where, in the first fracture, there had been a small loss of tissue, there was a distinct fibrous band, as large as his little finger. On wiping out the blood he saw a membrane of new formation underlying the patella, and entirely separating the fracture from the cavity of the joint, except at one point, where it was torn for half an inch; through this opening he was able to see false membranes within the joint connecting the condyles of the femur with the tibial head. He cleansed the wound, brought the fragments together with catgut and closed the wound, and the patient was now well. The fragments had again united, and there was some mobility in the joint. It was now two months since the second fracture. The reason Dr. Stimson reported the case was because he had seen not long ago the statement that there was no case known where any membranes of new formation had formed in the joint after wiring of the patella for simple fracture. But this joint was full of them, and they had formed without any inflammatory reaction or any symptoms indicating their formation. Again, it has been stated that a patient

with a fracture of the patella treated by wiring could be dismissed cured at the end of four weeks. Dr. Stimson did not know of any other similar fracture which was perfectly sound at the end of so short a period of time, but here was a case in which two months and a half had elapsed since the fracture, which had done well, and which, if reported two or three months ago, at the stage at which most cases had been reported, would probably have been cited as another example of the safety and value of the method of treating by wiring, and yet the union proved not to be strong enough to bear the weight of the body in descending stairs, and the joint did not allow of more than 20° or 30° of flexion.—*Proceedings N. Y. Surg. Soc.* 1885. Oct. 27.

VI. Compound Fractures of the Tibia and Humerus Treated by Wiring the Fragments. By J. R. CONWAY, JR., M.D. (New York). Relates a typical case of compound fracture of each of these bones, treated by exposing the bones with the most thorough antiseptic precautions, removing all effused blood, any badly contused or lacerated tissue and other foreign matter, drilling the exposed ends of the bone, wiring them with silver wire, and, after inserting a suitable drainage tube, applying antiseptic dressings and splints. The dressing should be of sufficient bulk to absorb the discharge expected—a certain amount of blood and serum—so that it will not be necessary to change them for a considerable period. The length of time the drainage tube is left in place varies from ten to thirty days, according to the severity of the contusion. In ordinary cases, where there is not excessive contusion and loss of tissues or badly comminuted fracture, the removal of the second or third dressing and splints usually leaves the parts perfectly repaired; in severe cases the dressings have to be changed somewhat more frequently.—*N. Y. Med. Jour.* 1886. Jan. 16.

GYNÆCOLOGICAL.

I. Dermoid Cysts of Both Ovaries. A Diverticulum From the One on the Left Side Included Within the Rectum. Ovariotomy. By J. E. JANVRIN, M.D. (New York). The patient observed while at stool, six years previously, a bundle of hairs

protruding from the anus, which, after repeated attempts, accompanied by severe pain, she pulled out three years after. Enlargement of the abdomen was not until two years previously. Abdominal section in the median line xeposed a large cyst which had developed from the right ovary and was the seat of three dermoid cysts, containing sebaceous matter and hair, and which was readily removed. A tumor, the size of an orange, was found still remaining on the left side of the pelvis; this was enucleated forcibly, the pelvic peritoneum being torn in the operation, and a fibrous prolongation was discovered in the direction of the rectum; drawing upon it with sufficient force, the rectum was torn open to the extent of an inch and a half, and through this opening was drawn—attached to the tumor by the fibrous prolongation—a small diverticulum, which had growing upon it a long lock of black hair, smeared with unmistakable fæcal matter. The wound in the rectum was closed by a continuous silk suture with great difficulty, because of its situation at the bottom of a deep and dark cavity, illumination being obtained from a mirror. The toilet was made with care, the wound dusted with iodoform and dressed antiseptically. The patient made a good recovery in spite of an obstinate vesical irritability and an extensive mural abscess at the site of the drainage tube, and was entirely cured two months after the operation.—*Am. Jour. Obstetrics.* Jan. 1886.

J. E. PILCHER (U. S. Army.)

II. On Operations for Prolapse of the Uterus and Vagina. By Dr. A. MARTIN (Berlin). He operated on 246 cases, of which forty-two, according to Hegar's method, four according to Winckel, five after Bischof's and twenty after his own method, described in a number of Volkmann's clinical lectures.

He undertakes the abrasio mucosæ, amputation or excision of the collum, anterior and posterior colporrhaphy all in one sitting, which generally occupies something less than an hour. Scarcely 4 per cent of all his cases had a normal uterus.

C. Rokitansky's theory that catarrh, dislocations, etc., of the uterus disappear as soon as that organ has been returned to its normal place in the pelvis, through colporrhaphy, etc., Martin is not inclined to ac-

cept, and recommends, therefore, the abrasio mucosæ and amputation of the collum, the results of which are beneficial and satisfactory, long existing endometritis disappearing and consequent pregnancy pursuing a normal healthy course. About 82 per cent of his cases had an elongation of the collum with hypertrophy, and in over 90 per cent there was retroflexion of the uterus. The number of permanent cures of retroflected uterus appears to have been small, as Martin reports only seventeen. In many of the others a pessary was found later on to be necessary. In three cases of older women, rendered incapable of work by the large extent of the prolapse, for which they had been often operated, M. attained excellent results by extirpating the uterus and adding later on anterior and posterior colporrhaphy. He considers anterior colporrhaphy of great importance, not only for reducing the size of the prolapsing mass, but in allaying the continual dragging on the bladder. Hegar's method for performing posterior colporraphy does not seem to have found much favor with Martin, nor do those of Winckel and Bischof. He prefers his own method, which consists in excising the lateral folds on both sides of the posterior columna nigarum, the latter being thereby retained as a firm support. For sutures he uses silk (carbolized), and also catgut, prepared as recommended by Küster, in juniperus oil. This latter has given him much satisfaction. He does not recommend the use of the continuous suture, as it is difficult to adapt the edges of the wound and attain even pressure in employing it.

A weak solution of corrosive sublimate was used for washing and the rules of antiseptic surgery maintained throughout. His patients remain in bed, lying on the back, for three weeks, the lower extremities being bound together to prevent movement, thus disturbing the healing process. The bladder is emptied twice daily by means of the catheter, the external wound being washed off afterwards. The silk sutures are extracted on about the tenth day after operations from the perineal wound, and in the course of three to four weeks as many as easily come away, from the vagina. Those in the uterus are left much longer, often two or three months. M. considers secondary hæmorrhage best avoided by careful and exact application of sutures. One hundred and ninety-five of his cases were complicated by parame-

tritis, more or less diffuse, all of which, however, recovered. Some thirteen cases became pregnant afterwards and were confined, experiencing no trouble from their former complaint. Eleven cases had a return of the trouble, but this was owing to the fact that the individuals themselves were well advanced in years, and were obliged to do much hard work. In two, however, M. could give no reason for a return of the prolapse. As the result of his experience, M. considers a radical treatment in these cases of prolapse by far the best, and is opposed to any palliative treatment, therefore, unless a general constitutional trouble or senile weakness should, contra-indicate an operative interference.—*Deutsch. Med. Woch.* 1886, 14 Jan.

III. On the Malignancy of Ovarian Cystoma, Especially of the Glandular Ovarian Cyst. By Dr. R. SCHLEGTENDAL (Hannover). S. reports following case: Patient æt. 52, poor physical condition, has had an abdominal tumor for four years. No cachexia. A large fluctuating tumor is felt in the abdomen, reaching about the width of hand above umbilicus. Bimanual exploration gives no pain. Posteriorly to uterus a second elastic tumor felt, probably connected to abdominal tumor. The latter is probably a cystic growth, arising from some organ in the smaller pelvis. Ovariotomy. Cyst bluish, semi-translucent, containing gluey and consistent mass of greenish color. On the left broad ligament a few small cysts and a cyst extirpated from right round ligament. A large number of small cysts were found on a narrow strip of the omentum along the colon, and which contained a clear fluid substance. As the patient already showed signs of collapse it was impossible to extirpate all of these latter. Owing to the consistent and sticky character of the cystic contents it was impossible to properly cleanse the abdominal cavity, and the wound was closed and dressings applied. Patient pretty comfortable and doing well until second day, when there was some rise in temperature and pain. Bandages removed on third day. Wound looks well. Compresses soaked in chlorine water applied. Death on fifth day, symptoms of collapse having set in the day previous. Autopsy. Wound healed per primam. Abdomen contains $^1/_3$ litre of watery opaque fluid, and in the smaller pelvis some gelatinous substance and some coagulated blood. On the

convex surface of liver and capsule of spleen, lower border of stomach and on the small intestine were miliary and larger cysts, also large cysts on the cœcum and descending colon.

In a case which Beinlich reports death occurred three days after the operation, from collapse, the drainage tubes having become clogged with the gluey cystic contents, and in which the results of the autopsy were about the same as those described in the author's case. Virchow called this a myxomatous degeneration of the peritoneum. In a second case of Beinlich, death occurred on the fourth day, with no appearance of sepsis. Beinlich also gives a third case, and in both of these last two cases the results of the autopsy were similar to those of the first. Atlee has reported on two cases, one of which, however, died after the cyst was punctured, before an operation was undertaken, and the other after ovariotomy had been performed. Mayer describes the following case. Patient æt. 48. Cyst contained yellowish, sticky and consistent mass. Peritoneum, both parietal and visceral, covered with small protuberances. As in the other cases a complete toilette of the abdomen was impossible. Patient died on the nineteenth day. The results of the autopsy agree with those of the cases described above. Virchow called this also a myxomatous cystoma, the rupture of which led to a general infection and myxomatosis of the peritoneum. In a case of Thornton's there was a sudden effusion into the abdominal cavity and symptoms of rupture of the cyst, without much reaction. Fourteen days later he found a new tumor in Douglas' space and operated. The peritoneum, Douglas' space, omentum, contained papillary excrescences and small cysts, similar to the ovarian cysts. Thornton regarded this new cyst-formation as caused by infection after puncture and cautions against the latter.

Smith operated a cystoma and found signs of old peritonitis and old cyst-ruptures. Recovery without fever. Similar cases have been observed and operated by Colrat, Olshausen (3), Baumgarten (3), Negri, Lindemann, Hannover, Marchand, E. Wagner and Maygrier. These prove beyond doubt the existence of a metastatic form of ovarian cystoma, the appearance of which, however, is not at all frequent, when compared to the large number of ovariotomies where this complication is not found. All these cases agree as to the consistent, sticky charac-

ter of the cystic contents, and as regards the thinness of the cystic membranes, from whence the frequency of rupture and consequent dissemination. Peritonitis would not necessarily follow such an event, owing to the gradual and slow manner with which the consistent cystic contents would empty themselves. The omentum, smaller pelvis, convex surface of the liver, cœcum and sigmoid flexure seem to be the parts mostly affected by this process of metastasis. Olshausen was the first to call attention to the malignancy of those cystomata having a papillary structure, with which Marchand also agrees. Mayer also remarks on the danger likely to arise from the malignant degeneration of these papillæ. Coblenz distinguishes the glandular from the papillary form of cystoma, and advises immediate extirpation of the latter to avoid infection. Flaischlen found not alone in sixty-nine cases of glandular cystoma four, and in fourteen cases of papillary cystoma two, which showed carcinomatous degeneration, but mentions especially the malignancy of the papillary form. The dangerous nature of the latter therefore, appears to be generally accepted.

Contrary to the prevalent theory as to the benignity of the simple myxoid-cystoma (or proliferating glandular cystoma of Waldeyer) a case of non-papillary cystoma reported by Baumgarten shows that this form also may be of a very malignant nature. In this case, as in the author's, the microscopical examination failed to discover any papillary excrescences in the structure of the cyst. The author does not agree with Baumgarten concerning the genesis of the metastatic infection, the latter holding that the secondary neoplasms result from veritable metastasis, and not from a casual inoculation of the abdominal cavity, such as could take place through the epithelium cells of the cyst during an operation. The author is inclined to believe in a resorption of particles of tumor by the peritoneum, where they remain. Otherwise, he asks, why should only the peritoneum and the immediate neighborhood be infected and not, for instance, the liver? In conclusion the author thinks with Baumgarten, that these two cases materially set aside the idea of absolute benignity or incapability of metastasis of the so-called homologenous tumors.—*Berlin. klin. Wochensch.* Nos. 2 and 3. 1886. Jan. 11 and 18.

C. J. COLLES (New York).